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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/588,041

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HUBR-1298

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EXAMINER

MESH, GENNADIY

ART UNIT

PAPER NUMBER

1796

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/588,041	<b>Applicant(s)</b> MORARU ET AL.	
	<b>Examiner</b> GENNADIY MESH	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 20-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 20-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1.1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 4, 2009 has been entered.

1.2. Claims 20-39 are active. Claim 20 has been amended by limiting scope of the claim to presence of oxyalkylene glycol alkenyl ethers, comprising polyethylene glycol moiety (see Formula II).

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 20-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albrecht et al. (WO 00/77058 - note that US 6,777,517 as equivalent of WO 00/77058 will be used in rejection as a English translation) in view of Hirata et al.( US 5,912,284).

Regarding claims 20-39 Albrecht discloses copolymers based on unsaturated mono-or dicarboxylic acid derivatives and oxyalkylene glycol alkenyl ethers, method of

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production and use of copolymers as functional additives in cement based formulations( see abstract , column 1, lines 5-35 and claims 1-20).

Note, that copolymers disclosed by Albrecht comprising substantially same structural units as it claims by Applicant in Claim 20:

i) from 51 to 95 mol % of structural units (Ia) or ( Ib) or (Ic) - see column 2, lines 43 - 65 - this unit is identical to unit a) claimed by Applicant

ii) from 1 to 48.9 mol.% of the unit represent by structural formula II - see column 3, lines 10 -24 - this unit has substantially same chemical structure as comprising polyethylene glycol moiety, but different molecular weight or degree of polymerization n from 0 to 200 of ethylene oxide groups compare with degree of polymerization from 250 to 500 in unit b) claimed by Applicant in Claim 1.

iii) from 0.1 to 5 mol% of identical units IIIa or IIIb - see column 3, lines 25 - 55.

Thus, the difference between copolymer claimed by Applicant and copolymer disclosed by Albrecht is that polyalkylene oxide in side chain (see compound of formula II) has higher degree of polymerization.

However, Hirata teach, that copolymer of similar chemical structure, comprising polyalkylene oxide moiety with degree of polymerization up to 300 in side chain (see general formula (3), column 2, lines 49 - 68 and column 3, lines 1-3) useful as cement admixture (see column 1, lines 5-16) and could give cement composition properties of achieving a high water reducing rate and preventing a reduction in the obtained flowability (called "slump loss"). Hirata also pointed out (see column 5, lines 33 - 40) that in order to obtain high water reducing capability, it is important to disperse cement

particles with steric repulsion and hydrophilicity due to a polyalkylene glycol chain having an average addition number of moles of oxyalkylene groups contained in the repeating unit (I') of 1 to 300 . Therefore, it is preferred that a large number of oxyethylene groups be introduced into the polyalkylene glycol chain and a polyethylene glycol chain is the most preferred".

Therefore, it would be obvious to one of ordinary skill to modify copolymer disclosed by Albrecht by incorporating polyalkylene oxide with degree of polymerization up to 300 per teaching of Hirata.

Regarding Claim 22 see Albrecht column 11, line 1.

Regarding Claims 23 and 24 see Albrecht column 3, lines 1- 10.

Regarding Claims 27-30 see Albrecht column 7, line 42-56.

Regarding Claims 31-39 Albrecht discloses ( see column 11, lines 22- 35) process of preparation of the copolymer by free radical polymerization, with out a solvent or in aqueous solution, at temperature in a range from 20<sup>0</sup> C to 100<sup>0</sup>C, wherein polymer can be present in concentration from 30 to 50 wt%.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir.

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1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3.1 Claims 20 - 39 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1- 20 of U.S. Patent No. 6,777,517 in view of Hirata et al.( US 5,912,284).

As it was discussed above claimed subject matter of instant Application is substantially same as claimed subject matter of US Pat. 6,777,517 - the difference in degree of polymerization of polyalkylene oxide in side chain ( see unit b of formula II).

However, Hirata that polyalkylene oxide with high degree polymerization (n value up to 300) is beneficial in order to obtain high water reducing capability, it is important to disperse cement particles with steric repulsion and hydrophilicity due to a polyalkylene glycol chain having an average addition number of moles of oxyalkylene groups contained in the repeating unit (I') of 1 to 300 . Therefore, it is preferred that a large number of oxyethylene groups be introduced into the polyalkylene glycol chain and a polyethylene glycol chain is the most preferred".

Therefore, it would be obvious to one of ordinary skill to modify copolymer claimed by Albrecht by incorporating polyalkylene oxide with degree of polymerization up to 300 per teaching of Hirata.

For this reason, claimed subject matter of instant application is obvious modification of claimed subject matter of US Pat. 6,777,517 in view of Hirata et al. (US 5,912,284).

3.2. Claims 20-39 are directed to an invention not patentably distinct from claim 1-20 of commonly assigned US Pat. 6,777,517 as it was discussed above (see paragraph 3.1.).

3.3. The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300). Commonly assigned US Pat. 6,777,517, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

3.4. Claims 20 -39 are rejected under 35 U.S.C. 103(a) as being obvious over US Pat. 6,777,517 in view of Hirata et al. (US 5,912,284) as it was explained above (see paragraph 2 above).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

### ***Response to Arguments***

4. Applicant's arguments filed on December 4, 2009 with respect to claims 20 - 39 have been considered but are moot in view of the new ground(s) of rejection.



***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GENNADIY MESH whose telephone number is (571)272-2901. The examiner can normally be reached on 10 a.m - 6 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on (571) 272 1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Milton I. Cano/  
Supervisory Patent Examiner, Art Unit 1796

Gennadiy Mesh  
Examiner  
Art Unit 1796

/GM/